

# Claims

- [c1] 1. A device for hands-free push-to-talk functionality, comprising:  
a push-to-talk sensor or switch operable by at least one of a preset audible signal, a predetermined movement of the sensor or switch, or air pressure; and  
means to control operation of a communications device in response to signals from the push-to-talk sensor or switch.
- [c2] 2. The device of claim 1, wherein the push-to-talk sensor or switch comprises at least one of an audible signal detector, an accelerometer, and a pressure sensitive switch.
- [c3] 3. The device of claim 1, wherein the push-to-talk sensor or switch comprises a tilt sensor, wherein a transmit mode of the communications device is activated in response to the tilt sensor being tilted more than a predetermined angle from a normalized angle for a predetermined time duration.
- [c4] 4. The device of claim 3, further comprising means for maintaining the communications device in the transmit

mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay.

[c5] 5. The device of claim 3, further comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay.

[c6] 6. The device of claim 1, wherein the push-to-talk sensor or switch comprises an audible signal detector, wherein a transmit mode of the communications device is activated in response to the audible signal detector detecting a preset audible signal.

[c7] 7. The device of claim 6, further comprising means for maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the preset audible signal after a selected time delay.

[c8] 8. The device of claim 6, further comprising means for switching the communications device to one of a receive mode or a standby mode in response to an absence of at least one of detecting a voice signal or the preset audible

signal after a selected time delay.

- [c9] 9. The device of claim 1, wherein the push-to-talk sensor or switch comprises a pressure sensitive switch, wherein a transmit mode of the communications device is activated in response to the pressure sensitive switch receiving a preset air pressure.
- [c10] 10. The device of claim 9, further comprising means for maintaining the communications device in a transmit mode in response to at least one of detecting a voice signal or the preset air pressure after a selected time delay.
- [c11] 11. The device of claim 9, further comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the preset air pressure after a selected time delay.
- [c12] 12. The device of claim 1, wherein the communications device is a wireless communications device.
- [c13] 13. The device of claim 1, wherein the communications device is one of a radio, a cellular phone, a cordless phone, a personal digital assistant and a computer.
- [c14] 14. The device of claim 1, further comprising a headset,

wherein the push-to-talk sensor or switch is mounted to the headset.

- [c15] 15. A communications device including hands-free push-to-talk functionality, comprising:
  - a push-to-talk sensor or switch operable by at least one of a preset audible signal, a predetermined movement or air pressure; and
  - a processor to control operation of the communications device in response to signals from the push-to-talk sensor or switch.
- [c16] 16. The communications device of claim 15, wherein the push-to-talk sensor or switch comprises at least one of an audible signal detector, an accelerometer, and a pressure sensitive switch.
- [c17] 17. The communications device of claim 15, wherein the push-to-talk sensor or switch comprises a tilt sensor, wherein a transmit mode of the communications device is activated in response to the tilt sensor being tilted more than a predetermined angle from a normalized angle for a predetermined time duration.
- [c18] 18. The communications device of claim 17, further comprising means for maintaining the communications device in the transmit mode in response to at least one

of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay.

[c19] 19. The communications device of claim 15, wherein the push-to-talk sensor or switch comprises an audible signal detector, wherein a transmit mode of the communications device is activated in response to the audible signal detector detecting a preset audible signal.

[c20] 20. The communications device of claim 15, wherein the push-to-talk sensor or switch comprises a pressure sensitive switch, wherein a transmit mode of the communications device is activated in response to the pressure sensitive switch receiving a preset air pressure.

[c21] 21. The communications device of claim 15, further comprising a headset, wherein the push-to-talk sensor or switch is mounted to the headset.

[c22] 22. A method for hands-free push-to-talk functionality, comprising:  
detecting at least one of a preset audible signal, a predetermined movement, or air pressure; and  
controlling operation of a communications device in response to detecting a presence or absence of at least one of the preset audible signal, the predetermined

movement, or air pressure.

- [c23] 23. The method of claim 22, wherein detecting the preset audible signal comprises detecting one of a voice signal, a static signal, a white noise signal, or a predefined sound, word, or group of words or numbers.
- [c24] 24. The method of claim 22, further comprising activating a transmit mode of the communications device in response to detecting the preset audible signal.
- [c25] 25. The method of claim 22, further comprising detecting a tilt sensor being tilted more than a predetermined angle from a normalized angle for a predetermined duration.
- [c26] 26. The method of claim 25, further comprising activating a transmit mode in the communications device in response to detecting the tilt sensor being tilted more than the predetermined angle from the normalized angle for a predetermined duration.
- [c27] 27. The method of claim 25, further comprising:  
maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or detecting the tilt sensor being tilted more than the predetermined angle after a selected time delay; and  
switching or maintaining the communications device in

one of a receive or standby mode in response to an absence of at least one of a voice signal or detecting the tilt sensor being tilted more than the predetermined angle after the selected time delay.

[c28] 28. The method of claim 22, further comprising detecting an air pressure greater than a preset air pressure.

[c29] 29. The method of claim 28, further comprising activating a transmit mode in the communications device in response to detecting the air pressure greater than the preset air pressure.

[c30] 30. The method of claim 29, further comprising:  
maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the preset air pressure after a selected time delay; and  
switching or maintaining the communications device in one of a receive or standby mode in response to an absence of at least one of a voice signal or the preset air pressure after the selected time delay.

[c31] 31. A method of making a device for hands-free push-to-talk functionality, comprising:  
providing a push-to-talk sensor or switch operable by at least one of a preset audible signal, a predetermined

movement of the sensor or switch, or air pressure; and providing means to control operation of a communications device in response to signals from the push-to-talk sensor or switch.

[c32] 32. The method of claim 31, wherein providing the push-to-talk sensor or switch comprises providing at least one of an audible signal detector, an accelerometer, and a switch sensitive to air pressure.

[c33] 33. The method of claim 31, wherein providing the push-to-talk sensor or switch comprises:  
providing a tilt sensor; and  
adapting the tilt sensor to cause activation of a transmit mode in the communications device in response to the tilt sensor being tilted more than a predetermined angle from a normalized angle for a predetermined time duration.

[c34] 34. The method of claim 31, wherein providing the push-to-talk sensor or switch comprises:  
providing an audible signal detector; and  
adapting the audible signal detector to cause activation of a transmit mode in the communications device in response to the audible signal detector detecting a preset audible signal.



- [c35] 35. The method of claim 31, wherein providing the push-to-talk sensor or switch comprises:  
providing a pressure sensitive switch; and  
adapting the pressure sensitive switch to cause activation of a transmit mode in the communications device in response to the pressure sensitive switch detecting a preset air pressure.
- [c36] 36. The method of claim 31, further comprising:  
providing a headset; and  
mounting the push-to-talk sensor or switch in the headset.
- [c37] 37. A computer-readable medium having computer-executable instructions for performing a method, comprising:  
detecting at least one of a preset audible signal, a predetermined movement, or air pressure; and  
controlling operation of a communications device in response to detecting a presence or absence of at least one of the preset audible signal, the predetermined movement, or air pressure.
- [c38] 38. The computer-readable medium having computer executable instructions for performing the method of claim 37, wherein detecting the preset audible signal comprises detecting one of a voice signal, a static signal,

a white noise signal, or a predefined sound, word, or group of words or numbers.

[c39] 39. The computer-readable medium having computer executable instructions for performing the method of claim 37, further comprising activating a transmit mode of the communications device in response to detecting the preset audible signal.

[c40] 40. The computer-readable medium having computer executable instructions for performing the method of claim 37, further comprising detecting a tilt sensor being titled more than a predetermined angle from a normalized angle for a predetermined duration.

[c41] 41. The computer-readable medium having computer executable instructions for performing the method of claim 40, further comprising activating a transmit mode in the communications device in response to detecting the tilt sensor being tilted more than the predetermined angle from the normalized angle for a predetermined duration.

[c42] 42. The computer-readable medium having computer executable instructions for performing the method of claim 40, further comprising:  
maintaining the communications device in the transmit

mode in response to at least one of detecting a voice signal or detecting the tilt sensor being tilted more than the predetermined angle after a selected time delay; and switching or maintaining the communications device in one of a receive or standby mode in response to an absence of at least one of a voice signal or detecting the tilt sensor being tilted more than the predetermined angle after the selected time delay.

[c43] 43. The computer-readable medium having computer executable instructions for performing the method of claim 37, further comprising detecting an air pressure greater than a preset air pressure.

[c44] 44. The computer-readable medium having computer executable instructions for performing the method of claim 43, further comprising activating a transmit mode in the communications device in response to detecting the air pressure greater than the preset air pressure.

[c45] 45. The computer-readable medium having computer executable instructions for performing the method of claim 44, further comprising:  
maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the preset air pressure after a selected time delay; and

switching or maintaining the communications device in one of a receive or standby mode in response to an absence of at least one of a voice signal or the preset air pressure after the selected time delay.